

# FIRE RESEARCH CORPORATION

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# FOCUS

# SAFETY SUMMARY

FRC lighting products are engineered and manufactured with safety in mind. It is critical that FRC scene lights are installed, maintained, and operated correctly. Read and understand all instructions before installing, performing maintenance, or operating.

All components, equipment, and installation procedures shall conform to NFPA 1901, Standard for Automotive Fire Apparatus and NFPA 70 National Electrical Code.

The following safety precautions shall be observed.

# **General Safety Precautions**

Ensure power is off prior to connecting or disconnecting wires and plugs or performing maintenance.

Scene lighting lampheads are designed for outdoor use and will be extremely hot when operating. Do not use in areas of limited ventilation.

# **Installation Safety Precautions**

Ensure power is off prior to connecting wires or cable to the power source.

Connect only to the type of power source as indicated on the lamphead identification label.

Ensure an appropriate sized circuit protection device is installed (circuit breaker or fuse).

Use a minimum of 16 AWG wire to connect AC lights and 12 AWG to connect DC lights.

FRC lights are intended for mounting to a noncombustible surface only. Do not install insulation within 76 mm (3 in) of any part of the light, lighting fixture, or its components.

Install approved rubber or plastic grommets or bushings where wires or cables pass through a surface.

Ensure all wire connectors or terminals provide a positive mechanical and electrical connection.

Electrical connections not enclosed in a box must be covered with an insulation equivalent to that on the conductors.

Lampheads will be extremely hot when operating, do not mount such that personnel or equipment could inadvertently come in contact with the lamphead.

Recessed lights require a minimum of 3 inch clearance between wall insulation and the light housing.

# **Operation Safety Precautions**

Operate portable lighting products only from the power source indicated on the identification label.

During operation use the handle to move the light, the housing will be extremely hot.

Ensure that all lighting components are clear of obstructions when raising telescopic poles.

Ensure that telescopic poles are lowered and stowed before moving the vehicle.

#### **Maintenance Safety Precautions**

Ensure power is off prior to removing the front glass or opening covers.

Do not operate the light with the front glass removed or cover opened.

Ensure replacement bulbs have the same voltage and wattage rating.

When handling a new quartz halogen, HIR, or HID bulb avoid touching it except on the flat seal at either end.

Use a clean soft cloth to wipe the reflector clean if necessary, do not use liquid or aerosol cleaners.

LGTR1A-Rev120606 **MAINTENANCE** 

# **Bulb Replacement Optimum and Focus**

- 1. Ensure power is OFF and the lamphead is cool to the touch prior to replacing the bulb.
- Ensure the replacement bulb has the same voltage and wattage rating. (If there are two bulbs installed, each bulb will be half the listed wattage.)
- Hold the glass in place while removing the bezels. Remove the four cap head screws and remove the bezels. Remove the

**Note:** Optimum gasket is attached, the Focus gasket may come off.

4. Slide the bulb sideways into the spring contact and lift it out from the opposite side.

**Note:** When handling the new bulb avoid touching it except on the flat seal at either end. (Grease or oily fingerprints can cause damage the quartz bulb.) If the bulb is accidently touched, gently wipe it clean with alcohol.

- Check both lamp base contacts to be sure they are perfectly clean.
- Push one end of the bulb into the spring contact until the other end can be placed into the opposite contact. Rotate the lamp back and forth about its axis to ensure adequate seating of contacts.

**Caution:** Do not operate the light with the front glass removed.

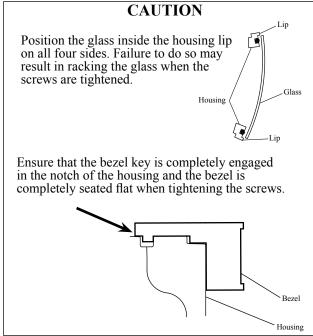
- Insert the Focus gasket in the groove with the splice positioned down.
- Hold the glass in position. Ensure the glass is inside the lip on all four sides.
- 9. Install the bezels and secure with the four screws.

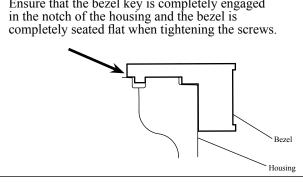
**Note:** Bulb life is extended when the lamphead is mounted so the bulb is in a horizontal position.

# Cleaning

Use a mild detergent and water to clean the lampheads and LED light lens.

High intensity lights may, over time, develop a powdery white film on the reflector. If this happens remove the glass (see bulb replacement procedure) and gently wipe the refelctor clean with a soft cloth.





#### Wiring

#### 12/24 VDC

Connect the BLACK wire to GROUND. Connect the WHITE or RED wire to POWER.

#### 120/240 VAC

Connect the GREEN wire to chassis GROUND.

Connect the WHITE wire to RETURN.

Connect the BLACK wire to POWER.

